

ABSTRACT

A feedthrough is insulated and hermetically sealed by brazing a ceramic disk to a case cover and by brazing the top surface of the ceramic disk to the bottom surface of a feedthrough pinhead. Using this technique instead of forming a compression seal, the surface area for bonding is increased, increasing bond strength. The ceramic disk electrically insulates the feedthrough pin from the cover, and provides a large surface area for mechanically sealing the cell with the braze. Considering the small size of many cells, this increased surface area is important for getting a good seal and increasing bond strength. This design also creates a longer fluid path, providing greater hermeticity. Furthermore, a greater range of component material combinations is available because CTE compatibility limitations of the feedthrough pin, cover, and insulator are minimized. This feedthrough is applicable to broad array of applications and numerous material combinations.